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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,106	10/16/2001	Hiroataka Yamada	FUJA 19.076	5355
26304	7590	08/18/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			PARK, JUNG H	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	

2661

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,106

Applicant(s)

YAMADA ET AL.

Examiner

Jung Park

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-5 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Abstract Objections

3. The abstract of the disclosure is objected to because applicant is reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. In line 18, the "said" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2661

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chikazawa et al. (U.S. Pub. No 2002/0024931, "Chikazawa") in view of Araki (U.S. 6,256,291).

Regarding claim 1, Chikazawa teaches a cross-connect function unit (4 Figure 1) and communication function unit (6 Figure 1) communicating among transmission nodes. Chikazawa is silent on the overhead of a transmission for communicating among the nodes. However, Araki teaches the format of a SONET OC-3 format (Figure 10A & 10B). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to follow the SONET frame format since it was known in the art that the protocol is a convention or standard that controls or enables the communicating among nodes in a ring network.

Chikazawa teaches a path management database (*Table 10* Figure 1; *RIP table 81#i* Figure 12), a path decision unit and an interchange decision unit in a master node (16 Figure 1), but he is silent on the method of switching from a UPSR to a BLSR. However, Araki teaches a path decision unit for determining a long path when switching from a UPSR mode to a BLSR by changing the bits of the frame indicating the category of the switching mode (*bits for bidirectional switching & unidirectional switching* b6-b8, Figure 12; col. 2, lines 30-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the path decision feature in Chikazawa with the

switching mode in Araki in order to efficiently manage path related information. The motivation is to reduce the processing time required to switch from a UPSR mode to BLSR. The line usage of the UPSR system is not efficient rather than the usage of BLSR because the rate increases as the number of nodes in the ring increases further.

Regarding claim 2, Chikazawa teaches the path decision unit for deciding on a long path to be deleted based on path setting information stored in the path management database. Chikazawa is silent on the detailed information about the procedure of path decision unit. However, a means for deciding on a long path to be deleted and sending a request for deletion of path setting information is the same procedure for determining route based on the smallest hop count between source and destination. RIP is a distance vector protocol that routinely broadcasts routing information to its neighboring (see Figure 12 for detailed procedures and Figure 44 for Rip table). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the RIP procedure to the path decision unit in Chikazawa's transmission apparatus since one would have been motivated to apply one of available route protocols for simple the path decision.

Chikazawa teaches a means of an interchange decision unit for deciding whether to change a path set on a protection channel to an idle work channel and sending a request for interchange based on path setting

information (*protection line and working line 2#W and 2#P* Figure 1; col. 5, para. 99).

Regarding claim 3, Chikazawa teaches a method of path interchange by updating a path management database (*Table 10* Figure 1). He teaches a method of inputting a command (*cross-connect information* Figure 1) for switching transmission line with the exception of the change of UPSR mode to the BLSR mode. However, Araki teaches the path decision unit for determining a long path when switching from a UPSR mode to a BLSR by changing the bits of the frame indicating the category of the switching mode as mentioned above in the claim 1 rejection. The procedures of collecting, deciding, change, and updating of the database are the same procedures for determining route based on the smallest hop count between source and destination. RIP is a distance vector protocol that routinely broadcasts routing information to its neighboring (see Figure 12 for detailed procedures and Figure 44 for Rip table). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine a path interchange method in Chikazawa with the mode change feature in Araki since one would be motivated to reduce the amount of processing time by simply changing the bits of the frame indicating the category of the switching mode.

Art Unit: 2661

Regarding claim 4, it is claim corresponding to claims 1 and 2 and is therefore rejected for the similar reasons set forth in the rejection of claims 1 and 2.

Regarding claim 5, it is claim corresponding to claim 1 and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

contact information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:10-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

Art Unit: 2661

access to the Private PAIR system, contact the Electronic Business
Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park
Patent Examiner
Art Unit 2661
August 10, 2005



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SUPERVISORY PATENT EXAMINER
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